

Appendix C

Allowable Planning, Equipment, Training, Exercise, and Administrative Costs

I. Allowable Planning Costs

Funds to be used for planning may be used to pay for activities associated with the completion of the urban area assessment, development of the Urban Area Homeland Security Strategy, and other planning activities, including: 1) conducting training sessions to ensure accurate completion of the assessment; 2) implementing and managing sustainable programs for equipment acquisition, training and exercises; 3) enhancement or establishment of mutual aid agreements; 4) enhancement or development of emergency operations plans and operating procedures; 5) development or enhancement of recovery plans; 6) development of communication and interoperability protocols and solutions; 7) coordination of citizen and family preparedness plans and programs, including donations programs and volunteer initiatives; 8) enhancement or development of continuity of operations and continuity of government plans; and 9) hiring of full or part-time staff or contractors/consultants to assist with any of the above activities.

II. Allowable Equipment Costs

Funds from the UASI Grant Program II may be used by the urban area to enhance capabilities in the areas of law enforcement, emergency medical services, emergency management, the fire service, hazardous materials, public works, governmental administrative, public safety communications, healthcare and public health at the state and local levels of government in accordance with the goals and objectives identified in the urban area assessment or capability enhancement plan. Other allowable uses of funds include measures associated with target hardening and critical infrastructure security. Grant funds may also be used to share critical information such as 1) systems to disseminate and safeguard threat information, and 2) alert notification systems. Funds may also be used for sustainment of first responder equipment that would be used in an urban area's response to a terrorist threat or event. This would include repair and replacement parts, equipment warranties and maintenance contracts for equipment purchased under this ODP grant.

Authorized equipment purchases may be made in the following categories:

1. Personal Protective Equipment (PPE)
2. Explosive Device Mitigation and Remediation Equipment
3. CBRNE Search & Rescue Equipment
4. Interoperable Communications Equipment
5. Detection Equipment
6. Decontamination Equipment
7. Physical Security Enhancement Equipment
8. Terrorism Incident Prevention Equipment
9. CBRNE Logistical Support Equipment
10. CBRNE Incident Response Vehicles
11. Medical Supplies and Limited Types of Pharmaceuticals
12. CBRNE Reference Materials

1. Personal Protective Equipment - Equipment worn to protect the individual from hazardous materials and contamination. Levels of protection vary and are divided into three categories based on the degree of protection afforded. The following constitutes equipment intended for use in a chemical/biological threat environment:

Level A. Fully encapsulated, liquid and vapor protective ensemble selected when the highest level of skin, respiratory and eye protection is required. The following constitutes Level A equipment for consideration:

- Fully Encapsulated Liquid and Vapor Protection Ensemble, reusable or disposable (tested and certified against CB threats)
- Fully Encapsulated Training Suits
- Closed-Circuit Rebreather (minimum 2-hour supply, preferred), or open-circuit Self-Contained Breathing Apparatus (SCBA) or, when appropriate, Air-Line System with 15-minute minimum escape SCBA
- Spare Cylinders/Bottles for rebreathers or SCBA and service/repair kits
- Chemical Resistant Gloves, including thermal, as appropriate to hazard

Personal Cooling System; Vest or Full Suit with support equipment needed for maintaining body core temperature within acceptable limits

Hardhat/helmet

- Chemical/Biological Protective Undergarment
- Inner Gloves
- Approved Chemical Resistant Tape
- Chemical Resistant Boots, Steel or Fiberglass Toe and Shank
- Chemical Resistant Outer Booties

Level B. Liquid splash resistant ensemble used with highest level of respiratory protection. The following constitute Level B equipment and should be considered for use:

- Liquid Splash Resistant Chemical Clothing, encapsulated or non-encapsulated
- Liquid Splash Resistant Hood
- Closed-Circuit Rebreather (minimum 2-hour supply, preferred), open-circuit SCBA, or when appropriate, Air-Line System with 15-minute minimum escape SCBA
- Spare Cylinders/Bottles for rebreathers or SCBA and service/repair kits
- Chemical Resistant Gloves, including thermal, as appropriate to hazard
- Personal Cooling System; Vest or Full Suit with support equipment needed for maintaining body core temperature within acceptable limits
- Hardhat/helmet
- Chemical/Biological Protective Undergarment
- Inner Gloves
- Approved Chemical Resistant Tape
- Chemical Resistant Boots, Steel or Fiberglass Toe and Shank
- Chemical Resistant Outer Booties

Level C. Liquid splash resistant ensemble, with same level of skin protection of

Level B, used when the concentration(s) and type(s) of airborne substances(s) are known and the criteria for using air-purifying respirators are met. The following constitute Level C equipment and should be considered for use:

- Liquid Chemical Splash Resistant Clothing (permeable or non-permeable)
- Liquid Chemical Splash Resistant Hood (permeable or non-permeable)
- Tight-fitting, Full Facepiece, Negative Pressure Air Purifying Respirator with the appropriate cartridge(s) or canister(s) and P100 filter(s) for protection against toxic industrial chemicals, particulates, and military specific agents.
- Tight-fitting, Full Facepiece, Powered Air Purifying Respirator (PAPR) with chemically resistant hood with appropriate cartridge(s) or canister(s) and high-efficiency filter(s) for protection against toxic industrial chemicals, particulates, and military specific agents.
- Equipment or system batteries will include those that are rechargeable (e.g. NiCad) or non-rechargeable with extended shelf life (e.g. Lithium)
- Chemical Resistant Gloves, including thermal, as appropriate to hazard
- Personal Cooling System; Vest or Full Suit with support equipment
- Hardhat
- Inner Chemical/Biological Resistant Garment
- Inner Gloves
- Chemical Resistant Tape
- Chemical Resistant Boots, Steel or Fiberglass Toe and Shank
- Chemical Resistant Outer Booties

Level D. Selected when no respiratory protection and minimal skin protection is required, and the atmosphere contains no known hazard and work functions preclude splashes, immersion, or the potential for unexpected inhalation of, or contact with, hazardous levels of any chemicals.

- Escape mask for self-rescue

Note: During CBRNE response operations, the incident commander determines the appropriate level of personal protective equipment. As a guide, Levels A, B, and C are applicable for chemical/ biological/ radiological contaminated environments. Personnel entering protective postures must undergo medical monitoring prior to and after entry.

All SCBAs should meet standards established by the National Institute for Occupational Safety and Health (NIOSH) for occupational use by emergency responders when exposed to Chemical, Biological, Radiological and Nuclear (CBRN) agents in accordance with Special Tests under NIOSH 42 CFR 84.63(c), procedure number RCT-CBRN-STP-0002, dated December 14, 2001.

Grant recipients should purchase: 1) protective ensembles for chemical and biological terrorism incidents that are certified as compliant with Class 1, Class 2, or Class 3 requirements of National Fire Protection Association (NFPA) 1994, Protective Ensembles for Chemical/Biological Terrorism Incidents; 2) protective ensembles for hazardous materials emergencies that are certified as compliant with NFPA 1991, Standard on Vapor Protective Ensembles for Hazardous Materials Emergencies,

including the chemical and biological terrorism protection; 3) protective ensembles for search and rescue or search and recovery operations where there is no exposure to chemical or biological warfare or terrorism agents and where exposure to flame and heat is unlikely or nonexistent that are certified as compliant with NFPA 1951, Standard on Protective Ensemble for USAR Operations; and, 4) protective clothing from blood and body fluid pathogens for persons providing treatment to victims after decontamination that are certified as compliant with NFPA 1999, Standard on Protective Clothing for Emergency Medical Operations. For more information regarding these standards, please refer to the following web sites:

The National Fire Protection Association - <http://www.nfpa.org>

National Institute for Occupational Safety and Health - <http://www.cdc.gov/niosh>

2. Explosive Device Mitigation and Remediation - Equipment providing for the mitigation and remediation of explosive devices in a CBRNE environment:

- Bomb Search Protective Ensemble for Chemical/Biological Response
- Chemical/Biological Undergarment for Bomb Search Protective Ensemble
- Cooling Garments to manage heat stress
- Ballistic Threat Body Armor (not for riot suppression)
- Ballistic Threat Helmet (not for riot suppression)
- Blast and Ballistic Threat Eye Protection (not for riot suppression)
- Blast and Overpressure Threat Ear Protection (not for riot suppression)
- Fire Resistant Gloves
- Dearmer/Disrupter
- Real Time X-Ray Unit; Portable X-Ray Unit
- CBRNE Compatible Total Containment Vessel (TCV)
- CBRNE Upgrades for Existing TCV
- Robot; Robot Upgrades
- Fiber Optic Kit (inspection or viewing)
- Tents, standard or air inflatable for chem/bio protection
- Inspection mirrors
- Ion Track Explosive Detector

3. CBRNE Search and Rescue Equipment - Equipment providing a technical search and rescue capability for a CBRNE environment:

- Hydraulic tools; hydraulic power unit
- Listening devices; hearing protection
- Search cameras (including thermal and infrared imaging)
- Breaking devices (including spreaders, saws and hammers)
- Lifting devices (including air bag systems, hydraulic rams, jacks, ropes and block and tackle)
- Blocking and bracing materials
- Evacuation chairs (for evacuation of disabled personnel)
- Ventilation fans

4. Interoperable Communications Equipment - Equipment and systems providing connectivity and electrical interoperability between local and interagency organizations

to coordinate CBRNE response operations:

- Land Mobile, Two-Way In-Suit Communications (secure, hands-free, fully duplex, optional), including air-to-ground capability (as required)
- Antenna systems
- Personnel Alert Safety System (PASS) - (location and physiological monitoring systems optional)
- Personnel Accountability Systems
- Individual/portable radios, software radios, portable repeaters, radio interconnect systems, satellite phones, batteries, chargers and battery conditioning systems
- Computer systems designated for use in an integrated system to assist with detection and communication efforts (must be linked with integrated software packages designed specifically for chemical and/or biological agent detection and communication purposes)
Portable Meteorological Station (monitors temperature, wind speed, wind direction and barometric pressure at a minimum)
- Computer aided dispatch system
- Commercially available crisis management software
- Mobile Display Terminals

*Note: In an effort to improve public safety interoperability, all new or upgraded radio systems and new radio equipment should be compatible with a suite of standards called ANSI/TIA/EIA-102 Phase I (Project 25). These standards have been developed to allow for backward compatibility with existing digital and analog systems and provide for interoperability in future systems. The FCC has chosen the Project 25 suite of standards for voice and low-moderate speed data interoperability in the new nationwide 700 MHz frequency band and the Integrated Wireless Network (IWN) of the U.S. Justice and Treasury Departments has chosen the Project 25 suite of standards for their new radio equipment. **In an effort to realize improved interoperability, all radios purchased under this grant should be APCO 25 compliant.***

5. Detection Equipment - Equipment to sample, detect, identify, quantify, and monitor for chemical, biological, radiological/nuclear and explosive agents throughout designated areas or at specific points:

Chemical

- M-8 Detection Paper for chemical agent identification
- M-9 Detection Paper (roll) for chemical agent (military grade) detection
- M-256 Detection Kit for Chemical Agent (weapons grade—blister: CX/HD/L; blood: AC/CK; and nerve: GB/VX) detection
- M-256 Training Kit
- M-18 Series Chemical Agent Detector Kit for surface/vapor chemical agent analysis
- Hazard Categorizing (HAZCAT) Kits
- Photo-Ionization Detector (PID)
- Flame Ionization Detector (FID)
- Surface Acoustic Wave Detector

- Gas Chromatograph/Mass Spectrometer (GC/MS)
- Ion Mobility Spectrometry
- Stand-Off Chemical Detector
- M-272 Chemical Agent Water Test Kit
- Colormetric Tube/Chip Kit specific for TICs and CBRNE applications
- Multi-gas Meter with minimum of O2 and LEL
- Leak Detectors (soap solution, ammonium hydroxide, etc)
- pH Paper/pH Meter
- Waste Water Classifier Kit
- Oxidizing Paper
- Protective cases for sensitive detection equipment storage & transport

Biological

Point Detection Systems/Kits (Immunoassay or other technology)

Radiological/Nuclear

- Radiation detection equipment (electronic or other technology that detects alpha, beta, gamma, and high intensity gamma)
- Personal Dosimeter
- Scintillation Fluid (radiological) pre-packaged
- Radiation monitors

Explosive

- Canines (initial acquisition, initial operational capability only)

6. Decontamination Equipment - Equipment and material used to clean, remediate, remove or mitigate chemical and biological contamination:

Chemical

- Decontamination system for individual and mass application with environmental controls, water heating system, showers, lighting, and transportation (trailer)
- Decon Litters/roller systems
- Extraction Litters, rollable
- Runoff Containment Bladder(s), decontamination shower waste collection with intrinsically-safe evacuation pumps, hoses, connectors, scrub brushes, nozzles
- Spill Containment Devices
- Overpak Drums
- Non-Transparent Cadaver Bags (CDC standard)
- Hand Carts
- Waste water classification kits/strips

Biological

- HEPA (High Efficiency Particulate Air) Vacuum for dry decontamination

7. Physical Security Enhancement Equipment - Equipment to enhance the physical security of critical infrastructure.

Surveillance, Warning, Access/Intrusion Control

Ground

- Motion Detector Systems: Acoustic; Infrared; Seismic; Magnetometers
- Barriers: Fences; Jersey Walls
- Impact Resistant Doors and Gates
- Portal Systems; locking devices for access control
- Alarm Systems
- Video Assessment/Cameras: Standard, Low Light, IR, Automated Detection
- Personnel Identification: Visual; Electronic; Acoustic; Laser; Scanners; Cyphers/Codes
- X-Ray Units
- Magnetometers
- Vehicle Identification: Visual; Electronic; Acoustic; Laser; Radar

Waterfront

- Radar Systems
- Video Assessment System/Cameras: Standard, Low Light, IR, Automated Detection
- Diver/Swimmer Detection Systems; Sonar
- Impact Resistant Doors and Gates
- Portal Systems
- Hull Scanning Equipment
- Plus all those for Ground

Sensors – Agent/Explosives Detection

- Chemical: Active/Passive; Mobile/Fixed; Handheld
- Biological: Active/Passive; Mobile/Fixed; Handheld
- Radiological
- Nuclear
- Ground/Wall Penetrating Radar

Inspection/Detection Systems

- Vehicle & Cargo Inspection System – Gamma-ray
- Mobile Search & Inspection System – X-ray
- Non-Invasive Radiological/Chem/Bio/Explosives System – Pulsed Neutron Activation

Explosion Protection

- Blast/Shock/Impact Resistant Systems

- Protective Clothing
- Column and Surface Wraps; Breakage/Shatter Resistant Glass; Window Wraps
- Robotic Disarm/Disable Systems

8. Terrorism Incident Prevention Equipment (Terrorism Early Warning, Prevention, and Deterrence Equipment and Technologies) - Local public safety agencies will increasingly rely on the integration of emerging technologies and equipment to improve urban area capabilities to deter and prevent terrorist incidents. This includes, but is not limited to, equipment and associated components that enhance an urban area's ability to disseminate advanced warning information to prevent a terrorist incident or disrupt a terrorist's ability to carry out the event, including information sharing, threat recognition, and public/private sector collaboration.

- Data collection/information gathering software
Data synthesis software
- Geographic Information System information technology and software
- Law enforcement surveillance equipment

9. CBRNE Logistical Support Equipment - Logistical support gear used to store and transport the equipment to the CBRNE incident site and handle it once onsite. This category also includes small support equipment including intrinsically safe (non-sparking) hand tools required to support a variety of tasks and to maintain equipment purchased under the grant as well as general support equipment intended to support the CBRNE incident response:

- Equipment trailers
- Weather-tight containers for equipment storage
- Software for equipment tracking and inventory
- Handheld computers for Emergency Response applications
- Small Hand tools
- Binoculars, head lamps, range finders and spotting scopes (not for weapons use)
- Small Generators to operate light sets, water pumps for decontamination sets
- Light sets for nighttime operations/security
- Electrical Current detectors
- Equipment harnesses, belts, and vests
- Isolation containers for suspected chemical/biological samples
- Bull horns
- Water pumps for decontamination systems
- Bar code scanner/reader for equipment inventory control
- Badging system equipment and supplies
- Cascade system for refilling SCBA oxygen bottles
- SCBA fit test equipment and software to conduct flow testing
- Testing Equipment for fully encapsulated suits
- Cooling/Heating/Ventilation Fans (personnel and decontamination tent use)
- HAZMAT Gear Bag/Box

10. CBRNE Incident Response Vehicles - This category includes special-purpose vehicles for the transport of CBRNE response equipment and personnel to the incident

site. Licensing and registration fees are the responsibility of the jurisdiction and are not allowable under this grant. In addition, general purpose vehicles (squad cars, executive transportation, etc.), fire apparatus, and tactical/armored assault vehicles are not allowable. Allowable vehicles include:

- Mobile command post vehicles
- Hazardous materials (HazMat) response vehicles
- Bomb response vehicles
- Prime movers for equipment trailers
- 2-wheel personal transport vehicles for transporting fully suited bomb technicians, Level A/B suited technicians to the Hot Zone
- Multi-wheeled all terrain vehicles for transporting personnel and equipment to and from the Hot Zone

11. Medical Supplies and Pharmaceuticals - Medical supplies and pharmaceuticals required for response to a CBRNE incident. Grantees are responsible for replenishing items after shelf-life expiration date(s).

Medical Supplies

- Automatic Biphase External Defibrillators and carry bags
- Equipment and supplies for establishing and maintaining a patient airway at the advanced life support level (to include OP and NG airways; ET tubes, styletes, blades, and handles; portable suction devices and catheters; and stethoscopes for monitoring breath sounds)
- Blood Pressure Cuffs
- IV Administration Sets (Macro and Micro) and Pressure Infusing Bags
- IV Catheters (14, 16, 18, 20, and 22 gauge)
- IV Catheters (Butterfly 22, 24 and 26 gauge)
- Manual Biphase Defibrillators (defibrillator, pacemaker, 12 lead) and carry bags
- Eye Lense for Lavage or Continuous Medication
- Morgan Eye Shields
- Nasogastric Tubes
- Oxygen administration equipment and supplies (including bag valve masks; rebreather and non-rebreather masks, and nasal cannulas; oxygen cylinders, regulators, tubing, and manifold distribution systems; and pulse oximetry, Capnography & CO2 detection devices)
- Portable Ventilator
- Pulmonary Fit Tester
- Syringes (3cc and 10cc)
- 26 ga ½" needles (for syringes)
- 21 ga. 1 ½ " needles (for syringes)
- Triage Tags and Tarps
- Sterile and Non-Sterile dressings, all forms and sizes
- Gauze, all sizes

Pharmaceuticals

- 2Pam Chloride
- Adenosine
- Albuterol Sulfate .083%
- Albuterol MDI
- Atropine 0.1 & 0.4 mg/ml
- Atropine Auto Injectors
- Benadryl
- CANA Auto Injectors
- Calcium Chloride
- Calcium Gluconate 10%
- Ciprofloxin PO
- Cyanide kits
- Dextrose
- Dopamine
- Doxycycline PO
- Epinephrine
- Glucagon
- Lasix
- Lidocaine
- Loperamide
- Magnesium Sulfate
- Methylprednisolone
- Narcan
- Nubain
- Nitroglycerin
- Normal Saline (500 and 1000 ml bags)
- Potassium Iodide
- Silver Sulfadiazine
- Sodium Bicarbonate
- Sterile Water
- Tetracaine
- Thiamine
- Valium

12. CBRNE Reference Materials - Reference materials designed to assist emergency first responders in preparing for and responding to a CBRNE incident. This includes but is not limited to the following:

- NFPA Guide to hazardous materials
- NIOSH Hazardous Materials Pocket Guide
- North American Emergency Response Guide
- Jane's Chem-Bio Handbook
- First Responder Job Aids

III. Allowable Training Costs

Funds from UASI Grant Program II grants may be used to enhance the capabilities of local emergency responders through the enhancement or development of an urban area homeland security training program, or delivery of existing ODP courses. Allowable training-related costs include: 1) development and/or establishment of CBRNE training courses, which should be institutionalized within existing training academies, universities or junior colleges. These courses must be consistent with ODP responder training guidelines and reviewed and approved by ODP; 2) backfill costs to replace responders who are attending ODP-approved courses; 3) overtime costs for responders who attend ODP-approved training courses, and 4) travel costs associated with planning or attending ODP-approved training.

The target audience for training supported through UASI Grant Program II grants must be emergency responders, emergency managers and public/elected officials within the following disciplines: firefighters, law enforcement, emergency management, emergency medical services, hazardous materials, public works, public health, health care, public safety communications, governmental administrative and private security guards. Grantees using these funds to develop their own courses should address the critical training areas and gaps identified in the urban area assessment or capability enhancement plan and must adhere to the ODP Emergency Responder Guidelines, which may be found at: http://www.ojp.usdoj.gov/odp/whatsnew/whats_new.htm.

IV. Allowable Exercise Costs

Funds from UASI Grant Program II grants may be used to plan for, design, develop, conduct, and evaluate exercises that train emergency responders and assess the readiness of urban areas to prevent and respond to a terrorist attack. Exercises must be threat and performance-based, in accordance with ODP's Homeland Security Exercise and Evaluation Program (HSEEP) manuals. These manuals will provide explicit direction on the design, conduct and evaluation of terrorism exercises. Exercises conducted with ODP support (grant funds or direct support) must be managed and executed in accordance with the HSEEP.

Allowable exercise-related costs include:

1. Exercise Planning Workshop - Grant funds may be used to plan and conduct an Exercise Planning Workshop to include costs related to planning, meeting space and other meeting costs, facilitation costs, materials and supplies, travel, and exercise plan development.

2. Full or Part-Time Staff or Contractors/Consultants - Full or part-time staff may be hired to support exercise-related activities. Payment of salaries and fringe benefits must be in accordance with the policies of the unit(s) of local government and have the approval of the awarding agency. The services of contractors/consultants may also be procured by the urban area in the design, development, conduct and evaluation of

CBRNE exercises. The applicant's formal written procurement policy or the Federal Acquisition Regulations (FAR) must be followed.

3. Overtime - Payment of overtime expenses will be for work performed by award (SAA) or sub-award employees in excess of the established work week (usually 40 hours). Further, overtime payments are allowed only to the extent the payment for such services is in accordance with the policies of the unit(s) of local government and has the approval of the awarding agency. In no case is dual compensation allowable. That is, an employee of a unit of government may not receive compensation from their unit or agency of government AND from an award for a single period of time (e.g., 1:00 pm to 5:00 pm), even though such work may benefit both activities. Fringe benefits on overtime hours are limited to FICA, Workman's Compensation and Unemployment Compensation

4. Travel - Travel costs (i.e., airfare, mileage, per diem, hotel, etc.) are allowable as expenses by employees who are on travel status for official business related to the planning and conduct of the exercise project(s). These costs must be in accordance with either the federal or an organizationally-approved travel policy.

5. Supplies - Supplies are items that are expended or consumed during the course of the planning and conduct of the exercise project(s) (e.g., copying paper, gloves, tape, and non-sterile masks).

6. Implementation of the HSEEP - Costs related to setting up and maintaining a system to track the completion and submission of After Action Reports (AAR) and the implementation of Corrective Action Plans (CAP) from exercises, which may include costs associated with meeting with local jurisdictions to define procedures. *(Note: ODP is developing a national information system for the scheduling of exercises and the tracking of AAR/CAPs to reduce the burden on the localities and to facilitate national assessments of preparedness.)*

7. Other Items - These costs include the rental of space/locations for exercise planning and conduct, exercise signs, badges, etc.

V. Management and Administrative Costs

Local governments may use up to 3% of the grant award to pay for activities associated with the implementation of the overall UASI Grant Program II, including: 1) hiring of full or part-time staff or contractors/consultants to assist with the collection of the assessment data; 2) travel expenses; 3) meeting-related expenses; 4) conducting local program implementation meetings; 5) hiring of full or part-time staff or contractors/consultants to assist with the implementation and administration of the assessment; and, 6) the acquisition of authorized office equipment. (Note: Authorized office equipment includes personal computers, laptop computers, printers, LCD projectors and other equipment or software which may be required to support implementation of the assessment. For a complete list of allowable meeting-related expenses, please review the OJP Office of the Comptroller (OC) Financial Guide at:

<http://www.ojp.usdoj.gov/FinGuide>.) States **MAY NOT** use funds under this Program for administrative costs, but may use FY 2003 State Homeland Security Grant Program I and II funds to cover such costs.

VI. Operational Activities

Grantees and subgrantees may use up to 25% of the gross amount of their award to reimburse for operational expenses, including overtime costs for personnel and costs associated with increased security measures at critical infrastructure sites, incurred during the ORANGE threat alert level beginning on February 7, 2003 and ending on February 27, 2003, beginning again on March 17, 2003 and ending on April 16, 2003, and beginning again on May 20, 2003 and ending on May 30, 2003. Reimbursement is available only for costs incurred during these time periods.

States and local governments should generally consider critical infrastructure to include any system or asset that if attacked would result in catastrophic loss of life and/or catastrophic economic loss. In addition, protection for the following specific types of facilities should also be considered:

- Public water systems serving large population centers
- Primary data storage and processing facilities, major stock exchanges and major banking centers
- Chemical facilities located in close proximity to large population centers
- Major power generation facilities that exceed 2000MW and if successfully attacked would disrupt the regional electric grid
- Hydroelectric facilities and dams that produce power in excess of 2000MW or could result in catastrophic loss of life if breached
- Nuclear Power plants
- Electric substations 500KV or larger, and substations 345KV or larger that are part of a critical system supporting populations in excess of one million people
- Rail and highway bridges over major waterways that, if destroyed, would cause catastrophic economic loss
- Major highway tunnels under waterways that if attacked would cause catastrophic loss of life or catastrophic economic impact
- Major natural gas transmission pipelines
- Natural Gas and liquid Natural Gas Storage (LNG) facilities
- Major petroleum handling facilities such as pipelines, ports, refineries and

terminals

- Major mass transit subway systems and the supporting ventilation systems

Grants funds may also be used to share critical information such as 1) systems to disseminate and safeguard threat information, and 2) alert notification systems.